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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,105	02/26/2004	Wu.Chang Yang	06542.0046	4258

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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/786,105

Applicant(s)

YANG ET AL.

Examiner

Kevin M. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 7-9, 12, 14, 15, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al (US 6,501,234) hereinafter Lin.

3. As to claim 1, figure 2 of Lin teaches a method for adjusting a switch frequency of a burst mode for a liquid crystal display, comprising the steps of:

(a) receiving a scan frequency value from a signal source *[inputting a reference signal 38, see col. 5, and line 15-24]*;

(b) deriving a switch frequency value of the burst mode according to the scan frequency value *[a frequency selection signal 40 is greater than a frequency of PWM signal 36 in col. 5, line 47]*; and

(c) transmitting the switch frequency value to a lamp controller *[delivering both signal 36 and 40 to phase delay array 16 to generate a plurality of phased burst signals 50 in col. 5, lines 56-58, and see col. 5, lines 2-65 for further details of the operation]*.

4. As to claim 2, Lin teaches the method according to claim 1, wherein at step (b), the switch frequency value of the burst mode is derived by a calculating method according to the scan frequency value in col. 5, lines 44-58.

5. As to claim 3, Lin teaches the method according to claim 2, wherein the switch frequency value of the burst mode equals a scan frequency value multiplied by a multiple  $(N+0.5)$ , wherein  $N$  is a positive number *[it is noted that when period  $T/k$  ( $k$  is the multiplier of signal 38) of the multiple signal 40, see col. 5, lines 44-58].*

6. As to claim 5, Lin teaches the method according to claim 2, wherein the switch frequency value of the burst mode equals a scan frequency value multiplied by a positive number in col. 7, lines 58-64.

7. As to claim 7, Lin teaches the method according to claim 1, wherein at step (b), the switch frequency value of the burst mode is derived by looking up a table according to the scan frequency value in fig. 5(a) and 5(B), col. 6 lines 7-24.

8. The limitation of claim 8 is similar to those of claim 1, though in apparatus form, therefore the rejection of claim 8 will be treated using the same rationale as claim 1.

9. Claim 9 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

10. Claim 12 shares the same limitations as those of claim 5 and therefore the rationale for rejection will be the same.

11. As to claim 14, Lin teaches the switch frequency adjusting system according to claim 8, wherein the adjuster comprises a frequency demultiplier for deriving the switch frequency value in fig. 4, col. 5, lines 59-65.

12. Claim 15 shares the same limitations as those of claim 3 and therefore the rationale for rejection will be the same.

13. Claim 17 shares the same limitations as those of claim 5 and therefore the rationale for rejection will be the same.

14. As to claim 19, Lin teaches the switch frequency adjusting system according to claim 8, wherein the adjuster comprises a database for storing a plurality of switch frequency values corresponding to various scan frequency values in fig. 5(a) and 5(B), col. 6 lines 7-24. Thus, the table corresponds to a database.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 4, 6, 11, 13, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin.

Lin teaches variable selector 24 is provided to permit variable dimming to be delivered to the load by changing the pulse width, L, of the PWM signal. The dim selector 26 determines the desired dim setting by increasing or decreasing a DC signal 30, see figure 3, col. 6, lines 25-58 for further details of the operation.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the frequency selection values of Lin to meet the tolerance  $\pm 20\text{Hz}$  and  $\pm 3\text{Hz}$  as recited in claims 4, 6, 11, 13, 16 and 18 because this

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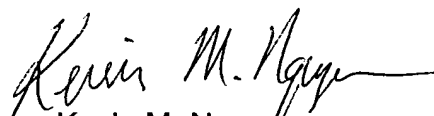
would improve the consistency of performance in the activation and intensity variation of multiple loads. Power is regulated to a plurality of loads using the plurality of phased burst signals, thereby determining the power to be delivered to the lamps, see col. 1, lines 9-13, and col. 3, lines 12-35.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin M. Nguyen  
Patent Examiner  
Art Unit 2629

KMN  
October 27, 2006